

WHAT IS CLAIMED:

1. A method for treating whey, comprising the steps of:
separating proteins from a whey stock solution;
5 placing the protein-free solution as a medium in a
reactor at 25-32°C and pH 3.8-4.6; and
aerobically culturing mushroom mycelia in the reactor.
2. The method for treating whey according to claim 1,
10 wherein the reactor is maintained at 28.3°C and pH 4.2.
3. The method for treating whey according to claim 1,
wherein the mushroom is at least one species selected from the
group consisting of *Ganoderma lucidum*, *Lentinus edodes*,
15 *Pleurotus ostreatus*, *Phellinus linteus* and *Agaricus bisporus*.
4. A method for culturing and cultivating mushroom
mycelia, comprising the steps of:
separating proteins from a whey stock solution;
20 placing the protein-free solution as a medium in a
reactor at 25-32°C and pH 3.8-4.6; and
aerobically culturing mushroom mycelia in the reactor
5. The method for culturing and cultivating mushroom
25 mycelia according to claim 4, wherein the reactor is

maintained at 28.3°C and pH 4.2.

6. The method for culturing and cultivating mushroom mycelia according to claim 4, wherein the mushroom is at least
5 one species selected from the group consisting of *Ganoderma lucidum*, *Lentinus edodes*, *Pleurotus ostreatus*, *Phellinus linteus* and *Agaricus bisporus*.